

**पशु आहार घटक के रूप में तुअर चुन्नी —
विशिष्टि**

(पहला पुनरीक्षण)

**Tur Chuni as Livestock Feed
Ingredient — Specification**
(*First Revision*)

ICS No. 65.120

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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Animal Husbandry, Feeds and Equipment Sectional Committee had been approved by the Food and Agriculture Division Council.

Tur or *Arhar Chuni* is a common livestock feed ingredient in India. The formulation of this standard was undertaken by the Animal Husbandry, Feeds and Equipment Sectional Committee in accordance with its programme planned for the formulation of Indian Standards for the various livestock feeds used in this country.

This standard was first published in 1965. In this revision, the standard has been updated considering latest technological developments and manufacturing practices. Following major changes have been made in this revision:

- a) Grade 2 has been removed considering its poor quality and non-availability in the market.
- b) Requirement for aflatoxin B1 has been introduced in the standard.
- c) Requirements of Castor husk and *Mahua* oilcake have been introduced in the standard.
- d) Methods of tests prescribed for determination of crude protein, crude fat, crude fibre and acid insoluble ash have been updated.

The composition of the Committee responsible for formulation of the standard is given in Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard

Indian Standard

TUR CHUNI AS LIVESTOCK FEED INGREDIENT — SPECIFICATION

(First Revision)

1 SCOPE

This standard prescribes the requirements and the methods of sampling and test for *Tur* or *Arhar* (*Cajanus cajan* L.) *Chuni* used as livestock feed ingredient.

2 REFERENCES

The following standards contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

| <i>IS No.</i> | <i>Title</i> | <i>IS No.</i> | <i>Title</i> |
|--|---|------------------------------------|---|
| 1070 : 1992 | Reagent grade water (<i>third revision</i>) | IS/ISO 6492 : 1999 | Animal feeding stuffs — Determination of fat content |
| 1712 : 2022 | Cottonseed oilcake as livestock feed ingredient — Specification (<i>third revision</i>) | IS/ISO 6865 : 2000 | Animal feeding stuffs — Determination of crude fibre content — Method with intermediate filtration |
| 2052 : 2009 | Compounded feeds for cattle — Specification (<i>fourth revision</i>) | 14826 : 2021/ISO 5985 : 2002 | Animal feeding stuffs — Determination of ash insoluble in hydrochloric acid (<i>first revision</i>) |
| 7874 (Part 1) : 1975 | Methods of tests for animal feeds and feeding stuffs : Part 1 General methods | IS/ISO 14718 : 1998 | Determination of aflatoxin B ₁ content of mixed feeding stuffs — Method using high-performance liquid chromatography |
| IS/ISO 5983 (Part 1) : 2005 | Animal feeding stuffs — Determination of nitrogen content and calculation of crude protein content : Part 1 Kjeldahl method | ISO 17375 : 2006 | Animal feeding stuffs — Determination of aflatoxin B ₁ |
| 5983 (Part 2) : 2021/ ISO 5983-2 : 2009 | Animal feeding stuffs — Determination of nitrogen content and calculation of crude protein content : Part 2 Block digestion and steam distillation method (<i>first revision</i>) | | |

3 DESCRIPTION

Tur or *Arhar Chuni* shall be the material obtained as a by-product in the preparation of *Tur* or *Arhar Dal* for human consumption and shall consist of finer broken pieces of *Dal* including germ and a portion of the husk.

4 REQUIREMENTS

4.1 General

The material shall be free from adulterants; musty, stale, or other objectionable odour or sourness; and from lumps, dirt, and extraneous matter including iron or other metallic pieces. The material shall be free from fungus or insect infestation.

4.2 The material shall also conform to the requirements prescribed in Table 1.

**Table 1 Requirements for *Tur* or *Arhar Chuni* as Livestock Feed Ingredient
(Clause 4.2)**

| Sl No. | Characteristic | Requirement | Method of Test, Ref to |
|--------|--|-------------|--|
| (1) | (2) | (3) | (4) |
| i) | Moisture percent by mass, <i>Max</i> | 10.0 | 4 of IS 7874 (Part 1) |
| ii) | Crude protein ($N \times 6.25$), percent by mass, <i>Min</i> | 18.0 | IS/ISO 5983 (Part 1)* or IS 5983 (Part 2) |
| iii) | Crude fat, percent by mass, <i>Min</i> | 1.5 | IS/ISO 6492 |
| iv) | Crude fibre, percent by mass, <i>Max</i> | 14.0 | IS/ISO 6865 |
| v) | Total ash, percent by mass, <i>Max</i> | 6.0 | 9 of IS 7874 (Part 1) |
| vi) | Add insoluble ash, percent by mass, <i>Max</i> | 1.0 | Annex A of IS 1712 or IS 14826* |
| viii) | Castor husk or oilcake | Absent | 11 of IS 7874 (Part 1) |
| ix) | <i>Mahua</i> oilcake | Absent | 12 of IS 7874 (Part 1) |
| x) | Aflatoxin B ₁ , ppb, <i>Max</i> | 20.0 | IS/ISO 14718* or ISO 17375 or AOAC 2003.02 |

NOTES

1 The values specified for requirements at Sl No. ii) to x) are on moisture-free basis.

2 In case of dispute, the test methods given above and wherever indicated by '*' shall be the referee method.

3 For crude fibre, the manual method given in IS/ISO 6865 shall be the referee method.

5. PACKING AND MARKING

5.1 Packing

Unless otherwise agreed to between the purchaser and the vendor, the material shall be packed in sound jute or HDPE bags. The mouth of each bag shall be either machine-stitched or rolled over and hand-stitched with strong jute twine.

5.2 Marking

5.2.1 Each bag shall be indelibly and legibly marked with the following information:

- a) Name of the material;
- b) Name and address of the manufacturer;
- c) Batch or code number;
- d) Net mass in kg;
- e) Date of packing;
- f) Best before date in month & year format and
- g) Any other requirements as specified under the *Legal Metrology (Packaged Commodities) Rules, 2011*.

5.2.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

6 SAMPLING

Representative samples of the material for ascertaining conformity to this standard shall be drawn according to the method prescribed in Annex H of IS 2052.

7 TESTS

Tests shall be carried out as prescribed in col 4 of Table 1.

7.2 Quality of Reagents

Unless specified otherwise, pure chemicals and distilled water (*see* IS 1070) shall be employed in tests.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the test results.

ANNEX A
(Foreword)

COMMITTEE COMPOSITION

Animal Husbandry, Feeds and Equipment Sectional Committee, FAD 05

| <i>Organization</i> | <i>Representative(s)</i> |
|--|---|
| In Personal Capacity (Former Director, Indian Veterinary Research Institute, Izzatnagar) | DR R. K. SINGH (Chairman) |
| All India Poultry Breeders Association, New Delhi | DR. A.K. RAJPUT |
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| National Dairy Research Institute, Karnal | DR NITIN TYAGI DR SACHIN KUMAR (<i>Alternate</i>) |
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